**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-53 (cancelled).

Claim 54 (currently amended): A program storage device readable by a machine, tangibly embodying a program of instructions executable by a machine to perform method steps for managing transportation operations for a plurality of orders, the method steps comprising:

planning a freight movement between a initial pick-up location and a final drop-off location; said planning step comprising accepting carrier services information from a plurality of potential carriers and business preferences information from a network user, accepting said plurality of orders, and constructing optimal freight movements from said orders based on said carrier services information and said business preferences information;

executing the planned freight movement with carriers; said executing step comprising sending tender offers to carriers associated with said optimal freight movements by said problem solver module and to schedule said optimal freight movements for execution, and tracking status of freight movements during execution; and

accounting for shipping costs incurred during execution of the planned freight movement, said accounting step comprising allocating invoiced costs received from carriers to appropriate orders, and authorizing payment of said invoiced costs to a relevant carrier;

storing data for each said order, said data relating to said tracking status and said

invoiced costs;

comparing said stored data with said carrier services information and business

preferences information utilized in said planning step; and

periodically modifying said carrier services information or said business

preferences information according to said stored data to improve planning of future

freight movements.

Claim 55 (original):   The program storage device readable by a machine according to

claim 54, wherein said planning step comprises the sub-steps of generating a plurality of

potential freight movements to satisfy each order and identifying the lowest cost freight

movement from said plurality of potential freight movements.

Claim 56 (original):   The program storage device readable by a machine according to

claim 55, wherein said plurality of potential freight movements are of types selected

from the group consisting of direct routes from origin to destination, indirect routes that

include a single through-point through which said order is routed, and multiple-leg

routes through that include two or more through points through which said order is

routed.

Claim 57 (original):   The program storage device readable by a machine according to

claim 56, wherein said through-points are selected from set of predefined through-points

for a given transportation lane.

Claim 58 (original):   The program storage device readable by a machine according to

claim 55, wherein said potential freight movements identify a proposed route and a

proposed carrier for each order.

Claim 59 (original):   The program storage device readable by a machine according to

claim 54, wherein said executing step further comprises the sub-steps of sending tender

offers to a proposed carrier indicated by said planned freight movement, receiving

acceptance/decline responses from said proposed carrier <u>for said tender offers</u>, and receiving status updates from said carrier and from locations during and after the execution of said freight movement.

Claim 60 (currently amended): The program storage device readable by a machine according to claim <u>54,</u> [[59,]] wherein tender offers are sent to said proposed carrier electronically.

Claim 61 (currently amended): The program storage device readable by a machine according to claim <u>54,</u> [[59,]] wherein <u>said executing step further comprises receiving</u> acceptance/decline responses from said proposed carrier ~~are received~~ electronically.

Claim 62 (currently amended): The program storage device readable by a machine according to claim <u>54,</u> [[59,]] wherein said status updates are used to automatically update records contained in an order database, said database being accessible by customers, carriers, and locations to review the status of select orders.

Claim 63 (original): The program storage device readable by a machine according to claim 54, wherein said accounting step comprises the sub-steps of receiving invoices from carriers for executed freight movements, allocating actual costs detailed in said invoices to orders, and vouchering carrier payment.

Claim 64 (original): The program storage device readable by a machine according to claim 63, wherein said vouchering sub-step comprises comparing said actual costs to expected costs calculated in said planning step, matching invoices with orders, and authorizing payment of said invoice amount to a relevant carrier if said actual costs do not substantially exceed said expected costs.

Claim 65 (currently amended): A <u>transportation operations</u> network of manager modules for planning, executing and paying for freight movements necessitated by a

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plurality of orders, said network comprising:

a problem-solver module, said problem-solver module being adapted to accept carrier services information from a plurality of potential carriers and business preferences information from a network user, said problem-solver module being further adapted to accept said orders and construct optimal freight movements from said orders based upon said carrier services information and said business preferences information;

an execution module, said execution module adapted to send tender offers to carriers associated with said optimal freight movements by said problem-solver module and to schedule said optimal freight movements for execution, and further adapted to track status of freight movements during execution; and

a freight payment module, said freight payment module being adapted to allocate invoiced costs received from carriers to appropriate orders and authorize payment of said invoiced costs to a relevant carrier; and

wherein said execution module is adapted to store data relating to said tracking status and said invoiced costs, said freight payment module is adapted to compare said stored data with said invoiced costs and said carrier services information and said business preferences information utilized in said planning step, and wherein said problem solver module is adapted to allow a user to modifying said carrier services information or said business preferences information periodically according to said stored data and invoiced costs to improve planning of future freight movements.

Claim 66 (original): The network according to claim 65, wherein said problem-solver constructs said optimal freight movements in batch runs, and wherein said batch runs comprise generating a plurality of potential freight movements to satisfy each order, and then identifying the lowest cost freight movement from said plurality of potential freight movements.

Claim 67 (original): The network according to claim 66, wherein said problem-solver module, said execution module, and said freight payment module each have at least one electronic interface to transfer data to or from said potential carriers.

Claim 68 (new):     The network according to claim 65, wherein said problem-solver constructs said optimal freight movements in batch runs, and wherein said batch runs comprise generating a plurality of potential freight movements to satisfy each order, and then identifying the lowest cost freight movement from said plurality of potential freight movements.

Claim 69 (new):     The network according to claim 65, wherein said problem-solver module, said execution module, and said freight payment module each have at least one electronic interface to transfer data to or from said potential carriers.

Claim 70 (new):     The network according to claim 65, wherein the planning module uses a load building algorithm to identify and compare possible alternative freight movements from various potential route and stop sequences, modes of transport, and carriers.

Claim 71 (new):     The network according to claim 69, wherein the planning module has decision making rules, and the decision making rules and the information used by the planning derive from business parameters that a transportation planning manager establishes for the system and from carrier availability and rate table information provided by external or fleet carriers.

Claim 72 (new):     The network according to claim 71, wherein the information provided by the transportation manager includes policies or operational requirements and the planning module performs various planning decisions before reaching an optimal transportation plan.

Claim 73 (new):     The network according to claim 69, wherein the planning module consolidates several movements into a single transportation load.

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Claim 74 (new):     The network according to claim 73, wherein the planning module determines a best shipping mode for the transport load, including a identifying a carrier, an equipment type, or a route for the transport load.

Claim 75 (new):     The network according to claim 69, wherein the planning module determines and routes that meet delivery time requirements and other business constraints.

Claim 76 (new):     The network according to claim 69, wherein the planning module identifies lowest-cost alternatives to make the planned freight movements.

Claim 77 (new):     The network according to claim 76, wherein the planning module generates an efficient load consolidation and identifies a least-costly carrier and private fleet assignment within constraints imposed by orders and a transportation planning manager.

Claim 78 (new):     The network according to claim 65 further comprising a front-end interface, said front-end user interface permitting a transportation planning manager to interact with one or more databases to define a plurality of decision making algorithms

Claim 79 (new):     The network according to claim 78, wherein there are multiple planned and executed freight movements being operated on by said program of instructions, and wherein said front-end user interfacing permits the transportation planning manager to review and modify files for each freight movement.

Claim 80 (new):     The network according to claim 65, wherein allocating invoiced costs received from carriers to appropriate orders and authorizing payment of said invoiced costs to a relevant carrier are performed by:

obtaining freight movement and shipping order records and invoices regarding executed freight movements, said freight movement and shipping order records each

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detailing one or more executed freight movements performed in response to one or more

orders;

rating the executed freight movements identified by the freight movement and

shipping order records;

matching obtained invoices to appropriate freight movements and shipping order

records;

identifying differences between expected and incurred costs for each executed

freight movement;

vouchering carrier payments for each matched invoice;

allocating carrier costs to orders associated with each vouchered invoice; and

billing an appropriate entity according to the allocated costs.

Claim 81 (new):     The network according to claim 80, wherein said vouchering sub-

step comprises authorizing payment of said invoice amount to a relevant carrier if said

actual costs do not substantially exceed said expected costs.

Claim 82 (new):     The network according to claim 80, wherein said allocating of

said carrier costs comprises dividing a total invoice amount for an invoice regarding a

particular executed freight movement to various orders that comprise said particular

executed freight movement.

Claim 83 (new):     The network according to claim 82, wherein said dividing is

accomplished using linehaul factors selected from the group consisting of weight, cube,

pallets, distance, weight with distance, cubes with distance, pallets with distance, weight

cube factor, and cost savings method.

Claim 84 (new):     The network according to claim 82, wherein said dividing is

accomplished according to the capacity utilized in for each order in said invoice

regarding said particular executed freight movement.

Claim 85 (new):     The network according to claim 84, wherein said allocations according to utilized capacity is performed according to capacity measures selected from the group consisting of weight, cube, pieces, pallets, weight cube factor, and gross sales value.

Claim 86 (new):     The network according to claim 65, wherein said orders comprise data detailing a client's desires to ship the order, including a source and a destination for the order, and a time frame for the delivery of the good.

Claim 87 (new):     The network according to claim 65, wherein said carrier services information comprises data related to services that transportation carriers are willing and capable to provide for the good, including a type of transport and prices for transporting the good.

Claim 88 (new):     The network according to claim 65, wherein said business preferences information comprises data describing the transportation solutions that are not possible, including time windows for transportation of the good, a maximum or minimum capacity, and business goals.

Claim 89 (new):     The network according to claim 65, wherein constructing optimal freight movements from said orders comprises:

consolidating any split orders into loads;

determining an appropriate shipping mode for each order and load;

building various alternative routes that meet order criteria and constraints as detailed by said carrier services information and business preferences information; and

identifying a lowest cost resource from said alternative routes.

Claim 90 (new):     The network according to claim 89, wherein said business preferences information comprises pre-set customer service requirements and priority routing rules that limit a field of available transportation solutions from which to build

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said various alternative routes.

Claim 91 (new):     The network according to claim 90, wherein said routing rules can be selected fro the group consisting of time windows indicating hours across a day in which pickup and delivery are possible, carrier ratings indicating levels of expected performance the carriers, order pickup and delivery sequences for multiple leg routes, compatible equipment types to service a particular location, and government regulations relating to the transportation of certain materials.

Claim 92 (new):     The program storage device readable by a machine according to claim 54, wherein said constructing of optimal freight movements comprises generating a plurality of potential freight movements to satisfy each order and identifying the lowest cost freight movement from said plurality of potential freight movements.

Claim 93 (new):     The program storage device readable by a machine according to claim 54, wherein constructing optimal freight movements from said orders comprises:
        consolidating any split orders into loads;
        determining an appropriate shipping mode for each order and load;
        building various alternative routes that meet order criteria and constraints as detailed by said carrier services information and business preferences information; and
        identifying a lowest cost resource from said alternative routes.

Claim 94 (new):     The program storage device readable by a machine according to claim 93, wherein said carrier services information comprises quoted fees for various offered transportation services, and identifying said lowest cost resource from said alternative routes utilizes said quoted fees.

Claim 95 (new):     The program storage device readable by a machine according to claim 93, wherein said business preferences information comprises pre-set customer service requirements and priority routing rules that limit a field of available

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transportation solutions from which to build said various alternative routes.

Claim 96 (new):     The program storage device readable by a machine according to claim 95, wherein said routing rules can be selected fro the group consisting of time windows indicating hours across a day in which pickup and delivery are possible, carrier ratings indicating levels of expected performance the carriers, order pickup and delivery sequences for multiple leg routes, compatible equipment types to service a particular location, and government regulations relating to the transportation of certain materials.

Claim 97 (new):     The program storage device readable by a machine according to claim 54, wherein said various alternative routes form multiple transportation solutions for said orders, wherein each of the solutions proposes an alternative transportation movement to satisfy said orders, and wherein each of said solutions identifies one or more particular carriers and equipment needed to perform the transportation movement.

Claim 98 (new):     The program storage device readable by a machine according to claim 54, wherein allocating invoiced costs received from carriers to appropriate orders and authorizing payment of said invoiced costs to a relevant carrier are performed according to the steps of:

obtaining freight movement and shipping order records and invoices regarding executed freight movements, said freight movement and shipping order records each detailing one or more executed freight movements performed in response to one or more orders;

rating the executed freight movements identified by the freight movement and shipping order records;

matching obtained invoices to appropriate freight movements and shipping order records;

identifying differences between expected and incurred costs for each executed freight movement;

vouchering carrier payments for each matched invoice;

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allocating carrier costs to orders associated with each vouchered invoice; and

billing an appropriate entity according to the allocated costs.

Claim 99 (new):     The program storage device readable by a machine according to claim 98, wherein said vouchering sub-step comprises authorizing payment of said invoice amount to a relevant carrier if said actual costs do not substantially exceed said expected costs.

Claim 100 (new):     The program storage device readable by a machine according to claim 98, wherein said allocating of said carrier costs comprises dividing a total invoice amount for an invoice regarding a particular executed freight movement to various orders that comprise said particular executed freight movement.

Claim 101 (new):     The program storage device readable by a machine according to claim 100, wherein said dividing is accomplished using linehaul factors selected from the group consisting of weight, cube, pallets, distance, weight with distance, cubes with distance, pallets with distance, weight cube factor, and cost savings method.

Claim 102 (new):     The program storage device readable by a machine according to claim 100, wherein said dividing is accomplished according to the capacity utilized in for each order in said invoice regarding said particular executed freight movement.

Claim 103 (new):     The program storage device readable by a machine according to claim 102, wherein said allocations according to utilized capacity is performed according to capacity measures selected from the group consisting of weight, cube, pieces, pallets, weight cube factor, and gross sales value.

Claim 104 (new):     A method for managing transportation operations necessitated by a plurality of orders, the method comprising:

assembling carrier services information from a plurality of potential carriers and

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business preferences information from a network user;

accepting one or more orders requiring transportation services;

constructing optimal freight movements from said accepted orders based upon said carrier services information and said business preferences information, said optimal freight movements identifying at least one or more particular carriers and equipment needed to perform said required transportation services;

sending tender offers to carriers associated with said optimal freight movements to schedule said optimal freight movements for execution;

tracking status of scheduled freight movements during their execution;

allocating invoiced costs received from carriers to appropriate orders;

storing data for each said order, said data relating to said tracking status and said invoiced costs;

comparing said stored data with said carrier services information and business preferences information utilized in said planning step; and

periodically modifying said carrier services information or said business preferences information according to said stored data to improve planning of future freight movements; and

authorizing payment of said invoiced costs to a relevant carrier.

Claim 105 (new):   The method of claim 104, further comprising using the update for external carrier performance tracking, private fleet performance tracking, and equipment tracking to improve a determination of a future transportation solution.

Claim 106 (new):   The method of claim 104, further comprising the step of tendering shipment requests to carriers after receiving responses to said tender offers.

Claim 107 (new):   The method of claim 106, wherein the step of tendering shipment includes transmitting the tenders electronically to the carriers.

Claim 108 (new):   The method of claim 106, further comprising the step of

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monitoring the carriers for one or more acceptances of the shipment requests.

Claim 109 (new):    The method of claim 104, further comprising the step of receiving an accounting from a carrier for an actual cost for the transportation of the good.

Claim 110 (new):    The method of claim 109, further comprising the step of sending an invoice to a client for an actual cost of the transportation of the good.

Claim 111 (new):    The method of claim 109, further comprising paying to a carrier an actual cost for the transportation of the good.

Claim 112 (new):    The method of claim 104, wherein allocating invoiced costs received from carriers to appropriate orders and authorizing payment of said invoiced costs to a relevant carrier are performed by:

obtaining freight movement and shipping order records and invoices regarding executed freight movements, said freight movement and shipping order records each detailing one or more executed freight movements performed in response to one or more orders;

rating the executed freight movements identified by the freight movement and shipping order records;

matching obtained invoices to appropriate freight movements and shipping order records;

identifying differences between expected and incurred costs for each executed freight movement;

vouchering carrier payments for each matched invoice;

allocating carrier costs to orders associated with each vouchered invoice; and

billing an appropriate entity according to the allocated costs.

Claim 113 (new):    The method of claim 112, wherein said vouchering sub-step comprises authorizing payment of said invoice amount to a relevant carrier if said actual

costs do not substantially exceed said expected costs.

Claim 114 (new):     The method of claim 112, wherein said allocating of said carrier costs comprises dividing a total invoice amount for an invoice regarding a particular executed freight movement to various orders that comprise said particular executed freight movement.

Claim 115 (new):     The method of claim 114, wherein said dividing is accomplished using linehaul factors selected from the group consisting of weight, cube, pallets, distance, weight with distance, cubes with distance, pallets with distance, weight cube factor, and cost savings method.

Claim 116 (new):     The method of claim 114, wherein said dividing is accomplished according to the capacity utilized in for each order in said invoice regarding said particular executed freight movement.

Claim 117 (new):     The method of claim 116, wherein said allocations according to utilized capacity is performed according to capacity measures selected from the group consisting of weight, cube, pieces, pallets, weight cube factor, and gross sales value.